

Title: Site Characterization and Analysis Penetrometer System, Laser Induced Fluorescence (LIF) Diesel Spill Site

Lead PI/Affiliation: NRaD

Co-PI's/Affiliations:

Date/Duration:

Initiated - 09/94

Completed - 12/95



Abstract:

The site characterization and analysis penetrometer system (SCAPS) with laser induced fluorescence (LIF) sensors was demonstrated as a quick field screening technique to determine the physical and chemical characteristics of subsurface soil and water contaminants at a Port Hueneme diesel spill site.

SCAPS is a suite of equipment mounted on a specially engineered 6 by 6 truck (60,000-pound weight class). The heart of SCAPS is the suite of sensors designed to detect petroleum products and to determine soil characteristics. The configuration demonstrated was a monochromatic (single light wavelength) LIF sensor and support system that is currently used in the Army and Navy SCAPS units.

The demonstration was designed to highlight the LIF SCAPS technology as a field screening method by comparing real-time, in-place data to data produced by conventional sampling and analytical methods.

Results/Conclusions:

Diesel spill site was characterized and confirmed by laboratory analyses.

Publications:

- 1) NFESC, "Field Summary Report, NCBC Port Hueneme, California, Site #22, Naval Exchange Monitoring Well #33, Former Building 90 Underground Storage Tanks", December 1995.